

October 2, 2003

D.T.E. 03-43

Petition of Western Massachusetts Electric Company, pursuant to G.L. c. 25, § 19 and G.L. c. 25A, § 11G, for approval by the Department of Telecommunications and Energy of an Energy Efficiency Plan for 2003.

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FOR: WESTERN MASSACHUSETTS ELECTRIC  
COMPANY  
Petitioner

## I. INTRODUCTION

On April 11, 2003, Western Massachusetts Electric Company (“WMECo” or “Company”) filed with the Department of Telecommunications and Energy (“Department”) its Energy Efficiency Plan for 2003 (“2003 Plan”).<sup>1</sup> The filing was made pursuant to G.L. c. 25, § 19, G.L. c. 25A, § 11G, and Order Promulgating Final Guidelines to Evaluate and Approve Energy Efficiency Programs, D.T.E. 98-100 (2000) (“DTE Guidelines”). The Department docketed this filing as D.T.E. 03-43.

On May 9, 2003, WMECo filed a supplement to the 2003 Plan. WMECo requested that the Department include this supplement in consideration of its request for approval of the 2003 Plan.

On May 23, 2003, pursuant to G.L. c. 25A, § 11G, 225 C.M.R. §§ 11.00 et seq., and the DTE Guidelines at § 6.2, the Commonwealth of Massachusetts, Division of Energy Resources (“DOER”), filed a report on the 2003 Plan with the Department (“DOER Report”). The DOER Report concluded that the 2003 Plan is consistent with the statewide energy efficiency goals required by G.L. c. 25A, § 11G, and with DOER’s Guidelines for energy efficiency programs (DOER Report at 2). See Guidelines Supporting the Massachusetts Division of Energy Resources Energy Efficiency Oversight and Coordination Regulation 225 C.M.R. §§ 11.00 et seq.

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<sup>1</sup> WMECo stated that it developed the 2003 Plan with an energy efficiency collaborative composed of the Associated Industries of Massachusetts, Inc. and the Low-Income Affordability Network (April 11, 2003 WMECo letter to the Department).

On June 12, 2003, the Department issued a notice of filing and request for comments. No comments were submitted. On June 30, 2003, WMECo filed a supplement to Table 5 of Appendix C, 'Performance Incentives,' of the 2003 Plan. WMECo requested that the Department include this supplement in consideration of its request for approval of the 2003 Plan. WMECo responded to three Department information requests.<sup>2</sup>

## II. STANDARD OF REVIEW

The Department is required to ensure that energy efficiency activities are delivered in a cost-effective manner utilizing competitive procurement processes to the fullest extent practicable. G.L. c. 25, § 19; G.L. c. 25A, § 11G. The Department has established guidelines that, among other things, set forth the manner in which the Department reviews ratepayer-funded energy efficiency plans in coordination with DOER, pursuant to G.L. c. 25, § 19 and G.L. c. 25A, § 11G. See D.T.E. 98-100.

DOER has the authority to oversee and coordinate ratepayer-funded energy efficiency programs, consistent with specified goals, and is required to file annual reports with the Department regarding proposed funding levels for said programs. G.L. c. 25A, § 11G; 225 C.M.R. §§ 11.00 et seq. If the DOER report concludes that ratepayer-funded energy efficiency programs are consistent with state energy efficiency goals, and if no objection to the DOER report is raised, the Department's review of the 2003 Plan is limited to

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<sup>2</sup> On its own motion, the Department moves into the record of this proceeding, the 2003 Plan as supplemented on May 9, 2003, and June 30, 2003, and the Company's responses to three Department information requests. The responses are marked as Exhs. DTE 1-1 through DTE 1-3. In addition, the Department incorporates by reference into the record of this proceeding the DOER Report. 220 C.M.R. § 1.10(3).

cost-effectiveness issues and the use of competitive processes. DTE Guidelines at § 6.2; 225 C.M.R. §§ 11.00 et seq.

### III. THE COMPANY'S 2003 ENERGY EFFICIENCY PLAN

#### A. Cost-Effectiveness

Pursuant to the DTE Guidelines: (1) an energy efficiency program shall be deemed cost-effective if its benefits are equal to or greater than its costs, as expressed in present value terms and (2) before implementation, each Program Administrator shall file with the Department sufficient information, including assumptions, to support the determination of cost-effectiveness for all proposed energy efficiency programs. DTE Guidelines at §§ 3.5, 4.2.1.<sup>3</sup>

WMECo estimated the pre-implementation benefit/cost ("B/C") ratio for each energy efficiency program proposed for 2003 (2003 Plan at 55). The Company stated that it estimated the costs and benefits of its energy efficiency programs in a manner consistent with the DTE Guidelines (id. at 8). With respect to its residential energy efficiency programs, WMECo estimated pre-implementation B/C ratios greater than 1.00 for all such programs (id. at 55). However, for one of its residential programs, Energy Star Homes, WMECo estimated a B/C ratio of 1.14, only slightly greater than the threshold of 1.00 (id.).

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<sup>3</sup> Each energy efficiency program is subject to a post-implementation evaluation, addressing post-implementation estimates of energy savings, capacity savings, and other savings as well as post-implementation costs. Shareholder incentives are also determined as a result of the post-implementation evaluation. See DTE Guidelines §§ 4.1, 4.2.2, 5.3.

With respect to its low-income energy efficiency programs, WMECo estimated a pre-implementation B/C ratio of 3.03 for its only low-income program (id.). With respect to its commercial and industrial (“C/I”) programs, the Company estimated pre-implementation B/C ratios that range from 1.46 to 4.49 (id.).

B. Competitive Procurement

WMECo provided a table summarizing its out-sourcing and competitive procurement activities (2003 Plan at 6). WMECo asserts the following: (1) 74 percent of its residential program activities are outsourced and 98 percent of those residential outsourced activities are competitively procured; (2) 85 percent of its low-income program activities are outsourced and 94 percent of those low-income outsourced activities are competitively procured; and (3) 38 percent of its C/I program activities are outsourced and 39 percent of those C/I outsourced activities are competitively procured (id.). WMECo also provided evidence that it coordinated its low-income programs with the Low-Income Energy Affordability Network, and that it implemented these programs through local community action program agencies (id. at 24-26).

C. Analysis and Findings

1. Cost Effectiveness

The record indicates that WMECo’s energy efficiency programs estimate pre-implementation B/C ratios that range from 1.14 to 4.49 (2003 Plan at 55). The Department reviewed the method by which the Company determined the benefits and costs for its programs, and finds that the benefits and costs were determined consistent with Department

criteria for establishing program cost-effectiveness. DTE Guidelines at §§ 3-4. Accordingly, the Department finds that energy efficiency programs in the 2003 Plan are, as estimated in the pre-implementation phase, cost-effective.

The Department notes that the benefits and costs of each program in WMECo's 2003 Plan are based on projections or forecasts of what benefits and costs may be expected. See DTE Guidelines at § 4.2.1. At this pre-implementation phase, the Department is concerned with energy efficiency programs with expected B/C ratios only nominally above 1.0, such as the Energy Star Homes Program with a B/C ratio of 1.14. The Department has previously noted its concern regarding energy efficiency programs with costs that might be greater than expected benefits. Massachusetts Electric Company and Nantucket Electric Company, DTE 00-65-A, at 5 (2002) (directing MECo to improve cost-effectiveness of Residential Conservation Services program because B/C ratio is less than 1.0). While the programs in the 2003 Plan meet the DTE Guideline's criteria for cost-effectiveness in the pre-implementation phase, given the low B/C ratio exhibited by the Energy Star Homes Program, it is not a certainty that its cost-effectiveness will be sustained into the post-implementation phase. See DTE Guidelines at §§ 3.5, 4.2.2.<sup>4</sup> Higher B/C ratios in the pre-implementation phase would greatly increase the likelihood that these programs would operate cost-effectively over time and that the Department could find that WMECo's "energy efficiency programs were implemented in a cost-effective manner" when the Department reviews and approves energy

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<sup>4</sup> The Department notes that low B/C ratio programs warrant close monitoring and timely adjustment by the program administrator. See DTE Guidelines at § 4.2.2.

efficiency expenditures in the post-implementation phase. G.L. c. 25, § 19;

G.L. c. 25A, § 11G; DTE Guidelines at § 4.2.2.

2. Competitive Procurement

WMECo provided evidence that it out-sources and competitively procures a high percentage of all its residential program activities, and that it complied with G.L. c. 25, § 19 for its low-income program activities (2003 Plan at 6, 23-26). In addition, WMECo presented evidence that it competitively procured a number of its C/I program activities (*id.* at 6).

Therefore, in accordance with G.L. c. 25, § 19, the Department finds that WMECo's 2003 Plan provides for competitive procurement to the fullest extent practicable.

IV. THE COMPANY'S 2003 SHAREHOLDER INCENTIVE PROPOSAL

A. The Company's Proposal

1. Incentive and Performance Levels

WMECo proposes an alternative to the method set forth in the DTE Guidelines for calculating the after-tax shareholder incentives that may result from the implementation of

Energy Efficiency Programs (2003 Plan at 52-53).<sup>5</sup> See DTE Guidelines at § 5.00. WMECo proposes to fix the after-tax shareholder incentive at five percent and adjust the upper and lower levels of performance by which the Company can obtain an incentive (“Proposed Incentive Method”) (id.).

First, the DTE Guidelines provide that the shareholder incentive be calculated as the product of (1) the average yield of the three-month United States Treasury bill (“T-Bill rate”), and (2) total program implementation costs as included in a distribution company’s Energy Efficiency Plan. DTE Guidelines at § 5.3. For its 2003 Plan, WMECo proposes to use a fixed rate of five percent instead of the T-Bill rate in this calculation (2003 Plan at 52).

WMECo states that this modification is necessary because the “very low prevailing Treasury bill rates may not provide an appropriate incentive to the electric distribution companies” (id.). The Company provided evidence that T-Bill rates for the years 2000-2002 were 6.02 percent, 3.78 percent, and 1.63 percent, respectively (Exh. DTE 1-1).

Second, pursuant to the DTE Guidelines, a distribution company may earn a shareholder incentive if its energy efficiency program is found to have operated within a threshold and exemplary performance levels of 75 percent to 125 percent of design level respectively, as measured during the post-implementation phase.<sup>6</sup> DTE Guidelines at § 5. In other words, a

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<sup>5</sup> The Department notes that all electric distribution companies have submitted similar proposals for an alternative to the DTE Guidelines for their 2003 energy efficiency plans.

<sup>6</sup> WMECo stated that the design level consists of achieving 100 percent of the goal set forth in its 2003 Plan (2003 Plan at 53).



distribution company that does not achieve at least 75 percent of its design performance level would receive no shareholder incentive, while a distribution company whose performance level exceeded the 75 percent threshold would receive a shareholder incentive that would vary based on its actual performance level, up to 125 percent of the design performance level (id.). In its 2003 Plan, WMECo proposes to establish a threshold performance level of 70 percent and exemplary performance level of 110 percent of design level (2003 Plan at 52).

WMECo applied the Proposed Incentive Method to its 1998-2002 energy efficiency plans, noting that it would have earned shareholder incentives ranging from approximately \$238,486 to \$1.1 million (Exh. DTE 1-1). Using the Proposed Incentive Method in terms of its 2003 Plan, WMECo projects that it would earn shareholder incentives of approximately \$470,000 (2003 Plan at 69).

## 2. Determinants of Shareholder Incentives

For its 2003 Plan, WMECo proposes to have three determinants of its shareholder incentive: a savings determinant, a value determinant, and a performance metric determinant (2003 Plan at 52-53, 69). WMECo stated that the savings determinant is driven by the ability of its energy efficiency programs to deliver capacity savings, energy savings, and non-electric benefits (id. at 53). The Company stated that, consistent with its bandwidth proposal, at least 70 percent of the respective design level energy, capacity, and non-electric benefits must be achieved before a shareholder incentive may be earned under this determinant (id. at 52, 69).

WMECo stated that its value determinant is driven by the ability of its energy efficiency programs to produce net benefits (id. at 53). That is, the value determinant rewards the

Company for lowering the costs and/or increasing the benefits of its energy efficiency programs (id. at 69). WMECo stated that its programs must produce at least 70 percent of the design level net benefits before an incentive may be earned under this determinant (id.). WMECo provided evidence that its savings, value, and performance metric determinants account for 47, 19, and 34 percent, respectively, of its 2003 shareholder incentive (id.).

B. DOER Report

DOER recommends approval of WMECo's Proposed Incentive Method (DOER Report at 4). DOER states that the Proposed Incentive Method is the product of extensive discussions with distribution companies, stakeholders, and DOER (id.). DOER notes that the Proposed Incentive Method has been developed for use by all Massachusetts distribution companies, and that, if adopted on that basis, it will provide uniformity in terms of the shareholder incentive method (id. at 3-4). DOER asserts that the Proposed Incentive Method is designed to more directly align the energy efficiency goals of distribution companies with energy efficiency goals of ratepayers (id. at 4).

With regard to the proposed five percent element in the calculation of its after-tax shareholder incentive, DOER contends that recent T-Bill rates have been much too low to adequately motivate distribution companies to provide high quality energy efficiency programs (id. at 3). For example, DOER states that from April to December of 2001, the T-Bill rate fell from 3.97 percent to 1.72 percent (id.). By December 2002, the T-Bill rate had fallen to

1.21 percent (id.). DOER concludes that the downward trajectory and variability of the recent T-Bill rates have been detrimental to distribution company efforts to design and deliver energy efficiency programs (id. at 5).

With regard to WMECo's proposal to adjust the upper and lower levels of performance from which the Company can obtain an incentive, DOER argues that the "wide" 75 to 125 percent bandwidth in the DTE Guidelines is no longer appropriate because, with experience gained over recent years, energy efficiency program performance can now be more accurately predicted (id.). DOER contends that 70 percent is appropriate as a bandwidth minimum because this level will allow WMECo to better absorb the risks associated with this Proposed Incentive Method (id. at 6). DOER asserts that capping the upper bound at 110 percent instead of 125 percent is appropriate because the lower cap will conserve energy efficiency funds without impairment to distribution company motivation because the new cap is part of a larger arrangement that includes the five percent rate (id.). DOER estimates that 110 percent cap could reduce exposure to ratepayers for after-tax incentive payments to distribution companies by nearly 1.25 percent, and this savings could instead be spent on energy efficiency activities (id.).

C. Analysis and Findings

1. Incentive and Performance Levels

When an entity seeking Department approval of its Plan requests a different method from that specified in the DTE Guidelines, the burden falls on that entity to demonstrate the compelling nature of such a request. DTE Guidelines at § 1(2). In this proceeding, WMECo

has proposed (1) a fixed shareholder incentive rate of five percent, instead of the T-Bill rate in calculating its shareholder incentive and (2) a threshold performance level of 70 percent and exemplary performance level of 110 percent of design level for use in its calculation of shareholder incentives.

The Department previously granted an exception to the DTE Guidelines that allowed distribution companies to use a fixed rate of 4.25 percent instead of the T-Bill rate for 2002 as an element in calculating its shareholder incentives. NStar Electric Company, D.T.E. 00-63-A at 8 (2003); Western Massachusetts Electric Company, D.T.E. 00-79-A at 7 (2003); Massachusetts Electric Company and Nantucket Electric Company, D.T.E. 00-65-A at 7 (2002). Most recently, the Department granted an exception to the DTE Guidelines that allowed a distribution company to use a fixed rate of five percent instead of the T-Bill rate in calculating after-tax shareholder incentives for calendar year 2003. Massachusetts Electric Company and Nantucket Electric Company, D.T.E. 03-2, at 17 (2003). The Department has recognized that the size of an incentive must balance promoting good program management with benefitting ratepayers by directing most of the budget to program implementation. D.T.E. 98-100, at 37. DOER, the agency charged by the Legislature with much of the oversight of energy efficiency programs, has agreed that offering an incentive is needed to motivate companies to manage their energy efficiency programs well. Id. at 35. DOER maintained that an incentive of four to six percent, equal to a three to four percent riskless real rate of return plus an inflation rate of one to two percent, would be sufficient to motivate

electric companies to manage energy efficiency programs well. Id. at 36. DOER stated that the then-recent T-Bill rate fell in the required four to six percent range. Id.

The Company has provided evidence that the T-Bill rate is now lower than the rate recommended by DOER in D.T.E. 98-100. While WMECo's proposed five percent after-tax rate exceeds the rate now provided for in the DTE Guidelines, and the method approved in D.T.E. 00-65-A, it is near the middle of the range that DOER proposed in D.T.E. 98-100 and the same as the five percent after-tax rate most recently approved by the Department in Massachusetts Electric Company and Nantucket Electric Company, D.T.E. 03-2.

In determining incentive levels, the Department must reach a balance between two objectives: (1) promoting effective programs, and (2) protecting the interest of ratepayers. D.T.E. 98-100, at 37-38 (1999); D.T.E. 98-100, at 21-22 (2000). The Company's proposal balances these two objectives, and is consistent with DOER information that the Department used in formulating the DTE Guidelines. The Department finds that the Company has met its burden to demonstrate the need for its request for an alternate method to calculate shareholder incentives in 2003. DTE Guidelines at § 1(2). Accordingly, the Department grants the Company's request for an exception to the DTE Guidelines, and grants WMECo's request to use five percent instead of the T-Bill rate in calculating after-tax shareholder incentives for the 2003 Plan for calendar year 2003.

The record indicates that WMECo's proposal to establish a threshold performance level of 70 percent and exemplary performance level of 110 percent of design level is the product of extensive discussions between distribution companies, stakeholders, and DOER. DOER has

concluded that implementation of this tighter bandwidth is justified because, with experience gained in recent years, the performance of energy efficiency programs can now be charted more accurately. DOER also estimated that lowering the threshold level might result in more available funds to be spent on energy efficiency activities, instead of on after-tax shareholder incentives. The Department agrees with DOER's conclusions. See DTE Guidelines at § 6.2(5). Most recently, the Department approved a similar proposal by a distribution company for use of a threshold performance level of 70 percent, and exemplary performance level of 110 percent of design level for use in its calculation of shareholder incentives. Massachusetts Electric Company and Nantucket Electric Company, D.T.E. 03-2, at 18. In light of DOER's conclusions, and the collaborative nature of the proposal, the Department finds that the Company has demonstrated the reasonableness of its proposal. Accordingly, the Department accepts the Company's proposal to establish a threshold performance level of 70 percent and exemplary performance level of 110 percent of design level.

## 2. Determinants of Shareholder Incentives

The Department notes that the savings and value determinants proposed by WMECo represent a shift in scope and emphasis when compared to the existing shareholder incentive arrangement. Distribution companies may express the level of performance they expect to achieve in implementation of their energy efficiency programs in levels of savings, in energy commodity and capacity, and in other measures of performance as appropriate. DTE Guidelines at § 5.2. Here the Company has established "other measures of performance."

Under the Company's proposed method, the savings and value determinants will account for 66 percent of shareholder incentive monies while performance metrics will account for the remaining 34 percent. The Department notes that the savings and value determinants promise to reward energy efficiency accomplishments and cost reduction, and recognizes the importance of a mechanism that makes this relationship visible. In addition, the Department notes the importance of cost reduction as a means of rewarding superior management and promoting effective use of energy efficiency funds. Accordingly, the Department finds that the Company's savings and value determinants are appropriate.

V. ORDER

Accordingly, after due notice, opportunity for public comment, and consideration, it is hereby

ORDERED: That the Petition of Western Massachusetts Electric Company for approval of its Energy Efficiency Plan for 2003 is APPROVED; and it is

FURTHER ORDERED: That Western Massachusetts Electric Company follow all other directives contained in this Order.

By Order of the Department,

/s/

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Paul G. Afonso, Chairman

/s/

\_\_\_\_\_  
James Connelly, Commissioner

/s/

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W. Robert Keating, Commissioner

/s/

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Eugene J. Sullivan, Jr., Commissioner

/s/

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Deirdre K. Manning, Commissioner



TABLE 1. WMECo Energy Efficiency Budget (\$000) and Planned Benefit/Cost Ratios

	2003	
	Budget	B/C Ratio
<b>Residential</b>		
Energy Star Homes	612	1.14
Residential Conservation Services	593	1.29
Smart Living Catalog	304	2.56
Retail Lighting	763	3.24
Energy Star Appliances	231	1.56
Subtotal Residential	2,503	
<b>Low-income</b>		
Energy Smart	1,067	3.03
Subtotal Low Income	1,067	
<b>Commercial / Industrial</b>		
New Construction	754	4.49
Custom Services	1,886	3.82
Express Services	251	3.26
RFP	738	3.66
Municipal	632	1.46
Small Business Energy Advantage	622	2.01
Subtotal Commercial/Industrial	4,883	
Administration, Evaluation	950	
TOTAL BUDGET	9,403	

Source: 2003 Plan at 3, 55

B/C ratios include participant costs.